

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------|------------------|
| 09/847,812 | 05/01/2001 | Albert E. Rickey | 99-1042 6352 | |
| 7590 10/27/2004 | | EXAMINER | | |
| Claudia Cameron | | | LANIER, BENJAMIN E | |
| Phoenix Technologies Ltd. 411 East Plumeria Drive | | | ART UNIT | PAPER NUMBER |
| San Jose, CA 95134 | | | 2132 | \mathcal{C} |
| | | | DATE MAILED: 10/27/2004 | , 6 |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Applicatio | n No. | Applicant(s) | | | |
|--|--|--|--|--|--|--|
| | 09/847,81 | | RICKEY ET AL. | | | |
| Office Action Summary | Examiner | | Art Unit | | | |
| | Benjamin B | : Lanier | 2132 | | | |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address | | | | | | |
| Period for Reply A SHORTENED STATUTORY PERIOD THE MAILING DATE OF THIS COMMU - Extensions of time may be available under the provisit after SIX (6) MONTHS from the mailing date of this co - If the period for reply specified above is less than thirt - If NO period for reply is specified above, the maximum - Failure to reply within the set or extended period for re Any reply received by the Office later than three month earned patent term adjustment. See 37 CFR 1.704(b) | INICATION. ons of 37 CFR 1.136(a). In no every mmunication. y (30) days, a reply within the statu n statutory period will apply and will ply will, by statute, cause the appli as after the mailing date of this con | nt, however, may a reply be tim tory minimum of thirty (30) days expire SIX (6) MONTHS from to cation to become ABANDONEC | nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133). | | | |
| Status | | | | | | |
| 1) Responsive to communication(s) | filed on | | | | | |
| 2a) This action is FINAL . | 2b)⊠ This action is no | n-final. | | | | |
| | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. | | | | | |
| Disposition of Claims | | | | | | |
| 4) □ Claim(s) 1-23 is/are pending in the 4a) Of the above claim(s) is 5) □ Claim(s) is/are allowed. 6) □ Claim(s) 1-23 is/are rejected. 7) □ Claim(s) is/are objected to 8) □ Claim(s) are subject to rest | s/are withdrawn from con | | | | | |
| Application Papers | | | | | | |
| 9) The specification is objected to by the Examiner. | | | | | | |
| 10)⊠ The drawing(s) filed on <u>01 May 2001</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner. | | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. | | | | | | |
| Priority under 35 U.S.C. § 119 | | | | | | |
| 12) Acknowledgment is made of a clai a) All b) Some * c) None of 1. Certified copies of the priori 2. Certified copies of the priori 3. Copies of the certified copies application from the Interna * See the attached detailed Office ac | ty documents have beer ty documents have beer es of the priority docume tional Bureau (PCT Rule | received. received in Applications have been receive 17.2(a)). | on No ed in this National Stage | | | |
| Attachment(s) | | | | | | |
| 1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) | | | | | | |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5. Paper No(s)/Mail Date 5. Paper No(s)/Mail Date 5. Paper No(s)/Mail Date 5. | | | | | | |

Art Unit: 2132

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- Claims 1-6, 8, 10-18, 20-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Miller, U.S. Patent No. 5,537,540. Referring to claims 1, 10-12, 14, 20-22, Miller discloses a method of virus detection during the boot process wherein ROM routine reads the master boot record from the hard drive. The master boot record contains a partition table indicating the type, location and size of each hard disk partition (Col. 8, lines 3-12), which meets the limitation of storing code in the nonvolatile memory that is capable of reading the partition table in the master boot record stored in the mass storage device, using the stored code to read the master boot record, locate the partition table in the master boot table, locate a bootable partition within the partition table, and begin a boot process using the bootable partition.

Referring to claims 2, 4, 5, 15, 17, 18, Miller discloses that the computer system calculates a hash code or an MDC of the last track of the reserved non-DOS partition that contains the SROM routine. The computer system then determines whether the last track has been modified by comparing the computed hash code with a value stored in the partition (Col. 8, lines 18-29), which meets the limitation of using the stored code to check the master boot record stored in the mass storage device has been changed since a prior determination.

Art Unit: 2132

Referring to claims 3, 16, Miller discloses that the master boot record is stored in the boot sector of the bootable partition (Col. 1, lines 51-56), which meets the limitation of the master boot record being stored in a secure area of the mass storage device.

Referring to claims 6, 8, Miller discloses that the calculated values could be checksums (Abstract).

Referring to claims 13, 23, Miller discloses that if the calculated hash and stored has differ, then the last track is restored (Col. 8, lines 30-38), which meets the limitation of when the value stored in the nonvolatile memory does not match the value calculated from the master boot record, using the stored code to update the master boot record.

Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
 - 1. Determining the scope and contents of the prior art.
 - 2. Ascertaining the differences between the prior art and the claims at issue.
 - 3. Resolving the level of ordinary skill in the pertinent art.
 - 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- 5. Claims 7, 9, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller, U.S. Patent No. 5,537,540, in view of Menezes. Referring to claims 7, 9, 19, Miller discloses a

Art Unit: 2132

method of virus detection during the boot process wherein ROM routine reads the master boot record from the hard drive. The master boot record contains a partition table indicating the type, location and size of each hard disk partition (Col. 8, lines 3-12), which meets the limitation of storing code in the nonvolatile memory that is capable of reading the partition table in the master boot record stored in the mass storage device, using the stored code to read the master boot record, locate the partition table in the master boot table, locate a bootable partition within the partition table, and begin a boot process using the bootable partition. Miller discloses that the calculated values could be checksums (Abstract). Miller does not disclose that the calculated value is a cyclic redundancy check. Menezes discloses that cyclic redundancy checks are commonly used checksums (Page 363). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use cyclic redundancy checks in the virus detection method of Miller because they provide significantly better error detection capabilities as taught in Menezes (Page 363).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin E Lanier whose telephone number is 703-305-7684. The examiner can normally be reached on M-Th0 7:30am-5:00pm, F 7:30am-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (703)305-1830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2132

Page 5

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Benjamin E. Lanier

GILBERTO BARRON SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2100